

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

Code : R1 E.Tv1/85/R

Cat No. : 1583

Title : N14 x Ripeners - late season

1. Particulars of the crop :

<u>This crop</u>	: Ratoon	<u>Spray method</u> : CO ₂ pressurised knap-
<u>Site</u>	: Mhlati TSB Field 25	sack with overhead boom fitted
<u>Region</u>	: Northern irrigated	with two TK 1,0 floodjets.
<u>Soil system</u>	: Komatipoort	<u>Volume/ha</u> : 40ℓ
<u>Soil form/series</u>	: Shortlands	<u>Weather @ spraying</u> : Sunny, very hot,
<u>Design</u>	: Randomised block 6 reps	no wind.
<u>Plot size</u>	: 12m x 1,5m x 4 rows	<u>Conditions of cane @ spraying</u> :
<u>Variety</u>	: N14	9 to 10 green leaves
<u>Date & age @ spraying</u>	: 14 Nov. - 10 mths	13 internodes per stalk
<u>Date & age @ harvest</u>	: 20 Dec. - 11,2 mths	<u>Sampling technique</u> : 4 stalks taken
<u>Sampling dates</u>	: 12 Nov, 8 Dec, 19 Dec.	from 4 predetermined points in each
<u>Irrigation</u>	: 42mm on 6 day cycle	plot. Starting point advanced by 1m
		on each sampling occasion. Quality
		determinations done at Pongola Field
		Station.

2. Objectives :

To continue assessing the responses of N14 to Roundup and Fusilade Super.

3. Treatments :

1. Control
2. Fusilade Super at 300ml ha⁻¹
3. Roundup at 750ml ha⁻¹
4. Roundup at 600ml ha⁻¹ and Rev. 9 at 350ml ha⁻¹
5. Fusilade Super at 300ml ha⁻¹ and Rev 9 at 350ml ha⁻¹
6. Roundup at 750ml ha⁻¹ and Rev 9 at 350ml ha⁻¹

4. Results from sampling :

Dates & wks after spray Treat- ments	ers % cane			stalk mass (g/stalk)		
	12/11 0	3/12 3	19/12 5	12/11 0	3/12 3	19/12 5
Control	6,9	8,1	8,4	645	666	1043
Fus 300	6,9	8,8	9,1	720	715	1134
Rup 750	6,7	7,3	9,2	651	668	961
Rup 600 + Rev	8,2	8,6	10,2	648	685	983
Fus 300 + Rev	7,4	7,4	9,2	695	657	1007
Rup 750 + Rev	6,5	7,1	9,1	684	716	1032
MEAN	7,1	7,9	9,1	670	682	1029
C.V. %	23,2	21,1	14,8	13,8	12,6	15,5
LSD (P=0,05)	1,9	2,0	1,6	108,9	101,5	188,0
S.E.D. †	0,95	0,96	0,78	53,3	49,7	91,9

Dates & wks after spray Treat- ments	ers g/stalk			Purity %		
	12/11 0	3/12 3	19/12 5	12/11 0	3/12 3	19/12 5
Control	45,0	53,3	85,8	74,9	76,1	80,8
Fus 300	50,6	63,5	103,3	75,4	78,6	82,8
Rup 750	42,9	48,8	86,6	74,0	74,9	83,5
Rup 600 + Rev	53,5	59,1	103,1	78,9	76,5	85,2
Fus 300 + Rev	50,9	48,4	92,4	76,8	74,0	83,4
Rup 750 + Rev	45,4	50,3	91,7	75,1	73,1	81,3
MEAN	47,6	53,8	92,7	75,7	75,6	82,5
C.V. %	24,7	19,7	16,6	6,9	6,2	4,6
LSD (P=0,05)	13,9	12,5	18,2	6,1	5,5	4,5
S.E.D. †	6,8	6,1	8,9	3,0	2,7	2,2

5. Comments

- ° The field was harvested prematurely and before treatments could have their full effects. Variability was high at this site.
- ° Stalk mass increased substantially during the five weeks after spraying and there was some indication that Fusilade Super at 300ml ha⁻¹ and Round-up at 600ml + Rev 9 increased ers g/stalk significantly (P=0,05) within this short period after spraying.

Changes in cane quality after applying ripeners

